

## AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/705,777

Filing Date: November 10, 2003

Title: SYSTEM AND METHOD FOR RACK MOUNT SYSTEM MID-PLANE INTERCONNECT USING SWITCHED TECHNOLOGY

Assignee: Intel Corporation

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IN THE CLAIMS

Please amend the claims as follows:

1-31. (Cancelled)

32. (Currently amended) A system to obtain a fixed impedance in a differential copper pair, comprising:

a first copper conductor extended along an axis;

a second copper conductor positioned substantially parallel along the axis, wherein the second copper conductor is spaced approximately 5 millimeters from the first copper conductor;  
and

an insulating casing encompassing the first copper conductor and the second copper conductor, wherein the insulating casing includes two substantially parallel side-ground-planes and two substantially parallel vertical-ground-planes, wherein the two side-ground-planes are each at least 0.015 inches thick and the two vertical-ground-planes are each at least 0.007 inches thick, the side-ground-planes and the vertical-ground-planes respectfully connect to encompass the first and second copper conductors, each of the side-ground-planes includes a pair of vias for connecting the two vertical-ground-planes, wherein the vias in each pair of vias are less than 0.1 inches apart.

33. (Cancel) The system of claim 32, wherein the second copper conductor is spaced 5 millimeters away from the first copper conductor.

34. (Cancel) The system of claim 32, wherein the first copper conductor is parallel to the second copper conductor.

35. (Cancel) The insulating casing of claim 32, wherein the insulating casing includes two side-ground-planes used for grounding.

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36. (Cancel) The insulating casing of claim 35, wherein the two side-ground-planes are at least 0.015 inches thick.
37. (Currently amended) The insulating casing of claim ~~35~~ 32, wherein an inner surface of a first one of the two side-ground-planes is located to the left of the first copper conductor and the second copper conductor.
38. (Currently amended) The insulating casing of claim ~~35~~ 32, wherein an inner surface of a second one of the two side-ground-planes is located to the right of the second copper conductor and the first copper conductor.
39. (Cancel) The insulating casing of claim 32, further comprising two vertical-ground-planes used for grounding.
40. (Cancel) The insulating casing of claim 39, wherein the two vertical-ground planes are at least 0.007 inches thick.
41. (Currently amended) The insulating casing of claim ~~39~~ 32, wherein a first one of the two vertical-ground-planes attaches perpendicularly to two side-ground-planes.
42. (Currently amended) The insulating casing of claim ~~39~~ 32, wherein ~~the a~~ first one of the two vertical-ground-planes is located above the first copper conductor and the second copper conductor.
43. (Currently amended) The insulating casing of claim ~~39~~ 32, wherein a second one of the two vertical-ground-planes attaches perpendicularly to two side-ground-planes.
44. (Currently amended) The insulating casing of claim ~~39~~ 32 ~~[[.]]~~, wherein ~~the a~~ second one of the two vertical-ground-planes is located below the first copper conductor and the second copper conductor.

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45. (Cancel) The insulating casing of claim 35, further comprising two pairs of vias wherein each of the two side-ground-planes includes one of the two pairs of vias.

46. (Cancel) The insulating casing of claim 45, wherein each of the vias in the one of the two pairs of vias are less than 0.1 inches apart.

47. (Currently amended) The insulating casing of claim ~~35~~ 32, wherein at least one of the two side-ground-planes is parallel to at least one of the first copper conductor and the second copper conductor.